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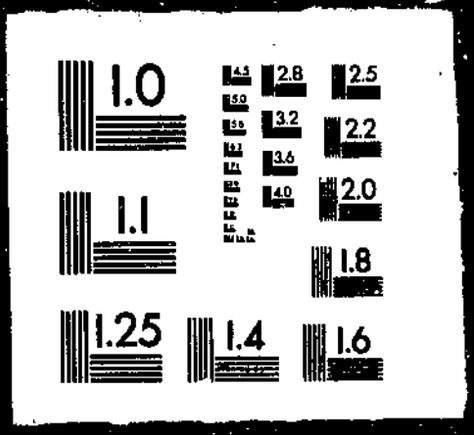

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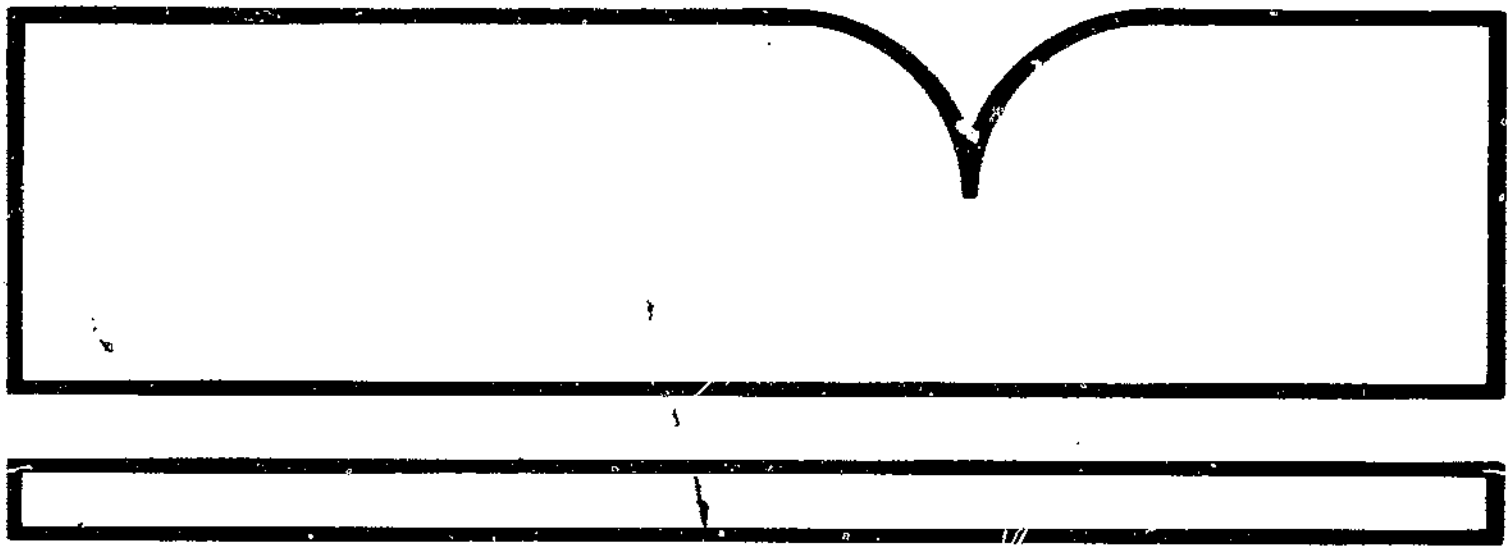

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ESS-15

Canadian and U.S. Farm Sector Comparisons

Nina Swann
Pat Weisgerber

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ABSTRACT

Many Canadian and U.S. farming trends ran almost parallel through the midseventies, with increasing farm consolidation, more shared ownership of farms, and dramatic increases in the value of farm capital in both countries. Corporations control about 10 percent of the land in farms in toth countries. While Canadian farmers produce primarily for the market within their own Province, U.S. farmers produce for markets extending well beyond their own State. This report looks at these and other similarities and differences between the Canadian and U.S. farm sectors.

Keywords: Canadian agriculture, U.S. agriculture, Farming trends

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Many Canadian and U.S. farming trends ran almost parallel through the midseventies, with increasing farm consolidation, more shared ownership of farms, and dramatic increases in the value of farm capital in both countries. Corporations control about 10 percent of the land in farms in both countries. While Canadian farmers produce primarily for the market within their own Province, U.S. farmers produce for markets extending well beyond their own State. This report looks at these and other similarities and differences between the Canadian and U.S. farm sectors.

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SUMMARY

Many Canadian and U.S. farming trends ran almost parallel through the midseventies, with increasing farm consolidation, more shared ownership of farms, and a dramatic increase in the value of farm capital in both countries. While Canadian farmers produce primarily for the market within their own Province, U.S. farmers produce for markets extending well beyond their own State. This report looks at these and other similarities and differences between the Canadian and U.S. farm sectors, including:

- The United States ranks number 1 and Canada number 2 in the production of exportable supplies of grains and oilseeds.
- As of the midseventies, farm numbers in both nations were only two-fifths what they had been in 1930.
- The proportion of partly owned farms has grown, mostly at the expense of tenant farms in the United States and fully owned farms in Canada. More than 50 percent of the land in farms in both countries is now controlled by part owner producers.
- To cope with the need for more capital, special tax provisions, and other factors, more complex farm business organizations have grown in number. Partnerships have grown faster in the United States and corporations faster in Canada. Corporations control about 10 percent of the land in farms in both countries.
- Value of farm capital in both Canada and the United States has increased dramatically, especially during the seventies. In 1976, an average U.S. farm was worth $204,000; an average Canadian farm was worth $182,600. Each average farm had a 17- to 18-percent debt against its assets.
- Gross farm earnings in the United States were 12 to 14 times Canada's gross farm earnings during the early seventies, but fell to 10 times Canada's earnings by 1975 and 1976. High wheat prices, as well as supply control schemes in Canada's dairy and poultry industries, contributed to the reduction in the ratio of U.S. to Canadian earnings.
- Farmers in both nations benefit from a practice which offsets nonfarm income with farm losses, and also use interest payments, depreciation, cash accounting, and other methods combined with aggressive expansion to reduce their current tax liability.

Canadian and U.S. Farm Sector Comparisons

Pat Weisgerber

Nina Swann

INTRODUCTION

Canada and the United States both have a favorable balance of agricultural trade with other countries: Canada's total agricultural exports at $6.3 billion in 1979 exceeded its agricultural imports by $2 billion, while the United States, with agricultural exports of $34.7 billion, enjoyed a surplus of $18 billion that year. Early indications are that the agricultural trade surplus was even larger in both countries in 1980.

The two nations are strong competitors in exports of grain and oilseeds, with the United States ranking number 1 and Canada number 2 in world exports of these commodities. Since the demand for these commodities is expected to show considerable growth in the next decade, it is desirable to study the structure, scope, and status of Canada's agriculture and potential for increased output. A helpful approach to an appreciation of the dimension and potential of Canada's agriculture is to make some comparisons with U.S. agriculture. This study looks at the similarities and differences between the farm sectors of the two countries.

The 1974 and 1976 data used for most of the report are the latest available for making a comprehensive comparative analysis of the two countries' farm sectors. This base period also has the advantage that U.S. and Canadian dollars were trading very near par during this time.

A WORD OF CAUTION

No effort was made to achieve strict comparability of definitions for the many comparisons. Data for each country were used whenever the underlying definition for two sets of data seemed to cover the same concept. Net farm income data, for instance, were used even though slightly different methods for calculating this statistic had been employed in each country.

Classifications with the same label were compared, even if such a classification was more inclusive in one country than in the other. Tenancy as a form of land tenure, for example, covered

renters in both countries who own all the machinery they use, as well as sharecroppers who contribute their labor only. Sharecroppers have been associated with several aspects of U.S. agriculture but are essentially absent from Canada's agriculture.

The same concept was often labeled differently in each nation. The value of farm products consumed in farm households plus the value of housing provided by the farm dwelling was called "income in kind" in Canada and "nonmoney income" in the United States. For purposes of this discussion, the designation "income in kind" was used for both countries (see table 8).

Money values were quoted in the dollars of the country concerned. Fortunately, during the midseventies, a period for which many comparisons made in this bulletin apply, the Canadian and U.S. dollars were essentially at par. The relative value of the Canadian dollar has been sliding since 1976, and in 1979 averaged only 85 cents in U.S. money.

Perhaps the biggest problem pertaining to definitions applies to definitions of census farms. Both nations have changed their definition of a farm, the United States in the census conducted in 1974, and Canada in 1976. The new U.S. definition is "a place which had annual sales of agricultural products of $1,000 or more." The old definition (pertaining to the 1969 census) had been "a place of 10 or more acres with annual sales of agricultural products of $50 or more, and a place of less than 10 acres with annual sales of $250 or more."

In Canada, the new definition in effect with the 1976 census defines a farm as "a place of one or more acres with $1,200 or more of farm sales." The old definition had been, "a place of one or more acres with $50 or more of farm sales."

The data presented here strictly follow the old definitions in 1969 and 1971, and the new definitions in 1974 and 1976. A closer look shows that both the old and new definitions are similar for both nations. A bigger difference between the old and new exists in the definitions within each country.

The changes in farm numbers and acreages (recorded in tables 13, 15, 17, 19, and 21) are the result of two effects: (1) forces promoting greater or less farm consolidation, plus forces which decrease or increase the supply of land in farms, and (2) the effect of a change in farm definition. In a number of cases, the second effect had more impact than the first.

Probably the largest distortion caused by a definition change was in the Atlantic Provinces of Canada. The Agriculture Census Division, Statistics Canada, supplied figures for all

holdings with 1 acre and $50 sales or greater (the old definition) for the Atlantic area as follows:

Province	Holdings			
	1971	1976	1971	1976
	-- Number --		-- Acres --	
Newfoundland	1,042	878	62,704	30,058
Prince Edward Island	4,543	3,677	774,630	731,035
Nova Scotia	6,008	5,434	1,328,875	1,218,953
New Brunswick	5,485	4,551	1,339,133	1,153,438
Total	17,078	14,540	3,505,342	3,133,484
	Percent			
Percentage change, 1971-76	-14.9		-8.2	

Comparing data using the old definition for 1971 and the new one for 1976, shows a percentage change of 40.6 for "number of holdings," and a percentage change of 21.7 for the "area in holdings" (see table 21). Thus, the definition change in the Atlantic Provinces had a substantially greater impact than did farm consolidation.

The definition change in the United States was somewhat less wide ranging, and the distortion it caused was therefore smaller. The State of Maine (the U.S. counterpart to the Atlantic Provinces) would have shown only an 11-percent decrease in farm numbers if the old definition had applied to both years (see table 21); using the old and new definitions, Maine farm numbers had shrunk by 19 percent. Land in farms would have shrunk only 10 percent, instead of the 13-percent decrease indicated.

AGGREGATE COMPARISONS

When the final line had been established to mark the boundary between Canada and the United States in 1870, Canada had retained only the northern fringe of North America's temperate zone. Climate and soils severely limit the amount of land suitable for commercial agriculture in Canada; in contrast, the United States has much good land and a generally favorable climate. Consequently, the agriculture of the United States overshadows that of Canada. On a per capita basis,

however, farming contributes similarly to each nation's economy. Canada's gross farm income of $13.7 billion in 1979 was over 9 percent of U.S. gross farm income; at 23.5 million, Canada's population was little more than 10 percent of the U.S. population.

Both nations have achieved a high degree of industrialization and do far more trading with each other than any other two nations. With a gross national product worth $243 billion a year, Canada sells $37 billion to the United States and buys $39 billion of American imports. Seventy percent of Canada's exports go to American buyers. Japan, the second largest buyer of Canadian goods, takes less than 10 percent.

Both countries have a favorable balance of agricultural trade with all other countries, but in trade with each other the balance is in favor of the United States. Canada imported $2.2 billion of agricultural goods and services in 1979, but her agricultural exports to the United States were only $1.8 billion. Fruits and vegetables are the largest category of Canada's agricultural imports from the United States--valued around $690 million in 1979.

Structure of the Farm Sector

Farm numbers in both the United States and Canada reached a peak in the thirties, standing at 6.8 million for the United States and at 0.73 million for Canada. By 1951, these figures had shrunk to 5.4 million and to 0.62 million, respectively. A quarter century later, the numbers had declined by another 50 percent to 2.7 million and 0.30 million.

Total land in farms reached a peak in the United States in the fifties at about 1,200 million acres and has been on a moderate decline since then (table 1). Land in farms in Canada appears to have reached a plateau of 174 million acres during 1940-66, and has been declining slowly since 1966. The percentage decline in farm numbers between 1931 and 1976 has been almost identical for the two countries--in 1976 each country had only two-fifths the number of farms existing in 1931.

Size of the average farm has grown continuously in both countries in the last 50 years. This trend will surely continue. Earnings tend to be relatively small per unit of farm output, and those relying heavily on farming for income must often increase total output to realize an adequate family income. The most common way of increasing total output is to add more acreage. There is also evidence that most farms can achieve greater cost efficiency if their operations are enlarged.

Less than 3.5 percent of the U.S. population live on farms. The range is from 0.4 percent in Rhode Island to 26 percent in South Dakota. About 4.5 percent of the Canadian population live on

Table 1--Total number of farms, land in farms, and average farm size, United States and Canada, selected years

Year	Number of farms		Land in farms		Average farm size	
	United States	Canada	United States	Canada	United States	Canada
	Thousands		Million acres		Acres	
1931	6,608	729	987	163	151	224
1941	6,293	734	1,065	174	168	237
1951	5,428	623	1,204	174	222	279
1956	4,514	575	1,197	174	265	303
1961	3,825	481	1,168	173	305	360
1966	3,257	430	1,132	174	348	405
1971	2,902	366	1,097	170	378	462
1976	2,738	300	1,078	166	394	553

Sources: (21, 29). 1/

farms. The range is from 0.3 percent in Newfoundland to 21 percent in Saskatchewan.

Land Tenure

Land tenure includes the ownership, use, and control of the land and the claims on services and income flows. Farmers are generally classified as full owners, part owners, or tenants. Full owners operate only the land owned and may have full or little equity in this land. Similarly, part owners may have full or little equity in the land owned, and rent a small or large portion of their total farmland. Tenants rent all their land, and their equity varies with ownership in machinery and livestock.

Both the U.S. and Canadian censuses of agriculture include very small holdings in their definition of a farm, and thus include many part-time farmers (table 2). A substantial proportion of part-time farmers, especially among the full owner class, receive, on average, more than 50 percent of their income from nonfarm sources. The part owner class tends to be made up more uniformly of full-time, or near full-time, commercial farmers. The percentage of part owners has been growing steadily in both countries in the past quarter century, and will soon make up about one-third of all farms. The increase in the percentage of part owner holdings in the quarter century has been at the expense of tenants in the United States (tenants dropped from 27

1/ Underscored numbers in parentheses refer to items in the references section.

Table 2-- Proportion of farms under various tenure arrangements, U.S. and Canadian farms, selected years

Country and year	Total farms	Tenure arrangement of total farms		
		Full owner	Part owner	Tenant
	Million	- - - Percent - - -		
United States:				
1950	5.39	57.3	16.1	26.9
1954	4.78	57.3	17.4	24.1
1959	3.71	57.1	22.4	19.9
1964	3.16	57.6	24.9	17.1
1969	2.73	62.6	24.5	12.5
1974	2.31	61.5	27.3	11.3
Canada:				
1951	.623	77.2	14.3	7.2
1956	.575	76.9	15.8	6.3
1961	.481	72.3	20.8	5.8
1966	.431	72.2	22.7	4.6
1971	.366	69.1	26.2	5.2
1976	.300	63.0	31.3	5.7

Sources: (18, 21, 29).

to 11 percent), and at the expense of full owners in Canada (who dropped from 77 to 63 percent).

Where families derive nearly all their income from farming, capital needs are becoming very large, and financing for full ownership of production resources is hard to obtain. Hence there is a trend to an ever greater separation of the ownership and control over farm capital requirements. Increasingly, the operators of full-time farms own some of the farm resources and rent some of the inputs, such as the additional land required when a farm operation is expanded.

The amount of land controlled by part owners had increased to over half of all land in farms by the midseventies. Land operated by part owners had reached 52 percent of all land in farms in Canada, and 53 percent of all land in farms in the United States. Thus in the midseventies, the average size of farms operated by part owners was much larger than the farm size of either full owners or tenants. In Canada, the average part owner farm was 2.6 times the size of the full owner farm and 1.3 times the size of the tenant farm. In the United States, the average part owner farm was 3.4 times the size of the full owner farm and 1.8 times the size of the tenant farm.

Canada and the United States differ most in regard to the number of farmer tenants. As recently as the early fifties, one-fourth of all farm operators in the United States were classified as tenants. A large proportion of these consisted of sharecroppers on farms growing tobacco, cotton, or sugarcane. Mechanization has rapidly moved sharecroppers off the farms. Nevertheless, this percentage of tenancy is still double that which exists in Canada. Further mechanization, such as that which is rapidly moving into tobacco farming, will continue to reduce the average percentage of tenancy in the United States.

Forms of Business Organization

To cope with the need for large amounts of capital, special tax and inheritance provisions, and other institutional relationships, complex business organizations are coming into the agriculture of both countries. Partnerships such as those between a father and son and family corporations are becoming more common as a means to provide for family succession, for satisfying large capital requirements, and sometimes to satisfy calls for specialization. Of course, the sole proprietorship or husband-wife combination is still by far the most common form of business organization, accounting for about 90 percent of all farming operations (tables 3 and 4). The sole proprietorship organization accounted for 75 percent of all U.S. land in farms and for 82 percent of all Canadian land in farms. The incidence of partnerships was more than twice as high among U.S. operations as among Canadian farms and accounted for three times as much of the land farmed. Corporations, at least family corporations, were more common in Canada than in the United States, but they accounted for only about 10 percent of land in farms in each country.

Table 3--Number of farms and land in farms by form of organization, United States, 1974 1/

Form of organization	Farms		Land in farms	
	Number	Percent	1,000 acres	Percent
Individual	1,517,787	89.5	678,738	74.9
Partnership	144,969	8.6	124,479	13.7
Corporations	28,442	1.7	96,125	10.6
Other 2/	3,849	.2	6,298	.7
Total	1,695,047	100.0	905,640	100.0

1/ Farms with sales of $2,500 or more.
2/ Estates, Indian reservations, and other.

Source: (30).

Table 4--Number of farms and land in farms by form of organization, Canada, 1976

Form of organization	Farms		Land in farms	
	Number	Percent	1,000 acres	Percent
Individual	274,490	91.5	134,983	81.3
Partnership	11,313	3.8	7,980	4.8
Corporations	13,212	4.4	14,895	9.0
Family	11,348	3.8	12,505	7.5
Independent	1,864	.6	2,389	1.4
Other 1/	1,201	.4	8,119	4.9
Total	300,118	100.0	165,976	100.0

1/ Includes community pasture, estates, and institutions.

Sources: (17, 21).

The three forms of farm business arrangements were cross-classified with seven main commodities sold by the farm (the "type" of farm, table 5). Grain farms were the most common type of farm in both countries among sole proprietorships and partnerships. Livestock (cattle and hog) farms were the second most numerous group, and dairy farms came in third. Under corporation farms, the same sequence held for Canada, but in the United States, livestock farms surpassed the number of grain farms.

The same form of business organizations were then cross-referenced with different groups classified by their gross farm sales (table 6). As expected, sole proprietorships were much more common than the other two forms in all sales categories. Partnerships and corporations become more prominent, however, moving from the lower to the higher sales categories. This is consistent with the theory that organizations become more complex as the need for additional capital grows.

Assets in the Farming Sector

Value of farm capital for both Canada and the United States has increased dramatically in recent years, chiefly as a result of increased land and machinery prices. In 1961, the total value of farm capital in Canada was $11.7 billion. By 1966 it had increased to $17.7 billion and by 1971 to $22.4 billion. During 1971-76, total capital increased nearly 145 percent to $55 billion, for an average annual growth rate of 20 percent in the latter 5 years. As the number of farms declined, the average capital investment per farm increased

Table 5--Number of farms under various business arrangements, by type of farm, United States 1974 1/ and Canada 1976

Type of farm	Farm business arrangement					
	Sole proprietorship		Partnership		Corporation 2/	
	United States	Canada	United States	Canada	United States	Canada
	Number					
Livestock	457,299	73,006	40,548	2,770	9,355	3,405
Dairy	172,828	44,135	20,898	2,329	2,331	1,460
Poultry	38,490	3,482	2,209	183	1,991	667
Grain	526,139	102,358	47,951	4,043	6,164	4,932
Fruit and vegetable	59,498	7,347	7,069	374	4,251	555
Field crop	73,221	4,987	6,126	527	2,068	654
Other	190,048	9,354	20,168	538	6,345	998

1/ Sales of $2,500 and over.
2/ Includes family and others.
Sources: (21, 30).

from $74,700 in 1971 to $182,600 in 1976. Of the total assets, 76 percent is in land and buildings, 16 percent in machinery and equipment, and 8 percent in livestock and poultry.

The rise in U.S. farm capital values followed the Canadian pattern although the increase was not as dramatic during 1971-76. The 1961 U.S. value of farm capital assets was $176 billion; it increased to $223 billion by 1966 and to $281 billion in 1971. The increase in the next 5 years was 82 percent to $511 billion. Land and buildings were 82 percent of total capital investment, machinery and equipment were 13 percent, and livestock and poultry made up the remaining 5 percent of the capital investment.

The average value of Canadian land with improvements was $250 per acre in 1976. In the Prairie Provinces, this came to only $170 per acre, with a low of $142 in Saskatchewan. Average values in Quebec were $277 per acre, $431 per acre in British Columbia, $664 per acre in Newfoundland, and $884 per acre in Ontario.

U.S. real estate values were over 50 percent higher than in Canada, with an average value of $385 per acre in 1976. Values were lowest in the intermountain area where Nevada, New Mexico, and Wyoming farmland averaged less than $100 per acre. The

Table 6--Number of farms under various business arrangements by economic sales class, United States 1974 1/ and Canada 1976

Economic sales class	Sole proprietorship	Partnership	Corporation 2/
		Number	
United States:			
$100,000 and over	138,463	27,811	16,319
$40,000-$99,999	280,824	37,107	6,379
$20,000-$39,999	290,596	27,671	3,504
$10,000-$14,999	284,521	22,801	2,689
$5,000-$9,999	277,272	17,180	1,921
$2,500-$4,999	275,897	12,399	1,687
Total	1,547,573	144,969	32,499
Canada:			
$100,000 and over	7,316	1,403	3,630
$75,000-$99,999	7,247	1,018	927
$50,000-$74,999	19,192	1,723	1,205
$35,000-$49,999	24,951	1,335	1,002
$25,000-$34,999	29,797	1,166	1,058
$15,000-$24,999	43,306	1,412	1,411
$10,000-$14,999	33,388	920	1,055
$5,000-$9,999	43,381	1,061	1,349
$2,500-$4,999	65,912	1,275	1,910
Total	274,490	11,313	13,547

1/ Sales of $2,500 and over.
2/ Includes family and other.

Sources: (21, 30).

highest values were in the Northeast where New Jersey farmland averaged more than $2,000 per acre. Intermediate values were in the Corn Belt where the land approached $1,000 per acre in 1976.

Comparing an average U.S. farm and an average Canadian farm in 1976, the U.S. farm had about 11 percent more value in terms of net worth, but the equity-to-debt ratio was about the same for each average farm of the two nations (table 7).

Farm Earnings

Gross farm income includes total cash receipts from farming plus income in kind. Income in kind is defined as the value of farm products consumed directly in farm households and the value of housing provided by farm dwellings. Net farm income is the difference between the gross farm income and operating charges plus depreciation. In the early seventies, U.S. total cash receipts ranged 12 to 14 times as large as those for Canada (table 8). But beginning in 1974, high wheat prices began to have a proportionately greater impact on Canada's cash receipts than on U.S. cash receipts. In 1975 and 1976, U.S. receipts fell to less than 10 times Canada's receipts.

Table 7--Balance sheet for average U.S. and Canadian farms, 1976

Item	Average U.S. farm	Average Canadian farm
	Dollars	
Assets:		
Land and buildings	166,000	138,400
Machinery and equipment	26,000	29,400
Livestock and poultry	12,000	14,800
Total	204,000	182,600
Liabilities:		
Short-term	16,000	10,300
Intermediate and long-term	21,000	21,450
Total	37,000	31,750
Net worth	167,000	150,850
	Percent	
Owners equity in the farm business	82	83
Debt	18	17

Source: (21), and unpublished material, U.S. Dept. Agr. (USDA), Econ. Res. Serv.

Table 8--Components of net farm income in Canada and the United States

Year	Total cash receipts 1/		Income in kind		Gross farm income		Operating and depreciation charges		Net farm income 2/	
	United States	Canada	United States	Canada	United States	Canada	United States	Canada	United States	Canada
	Million dollars									
1971	57,400	4,564	4,600	538	62,000	5,102	47,400	3,633	14,600	1,615
1972	66,000	5,451	5,000	559	71,000	6,010	52,300	3,888	18,700	1,874
1973	93,100	6,840	5,800	678	98,900	7,518	65,600	4,781	33,300	3,252
1974	91,300	8,879	7,000	827	98,300	9,703	72,200	5,842	26,100	3,773
1975	92,400	9,907	7,900	922	100,300	10,829	75,900	6,652	24,500	4,328
1976	93,100	10,005	8,700	1,029	101,800	11,034	83,100	7,116	18,700	3,377

1/ Includes supplementary payments.
2/ Adjusted for inventory changes.

Sources: (1, 20, 23, 24, 25).

Production of wheat in Canada was considerably lower during the early seventies than later in the decade; 1970/71 was a record poor year with 9 million metric tons, and 1971/72 had 14.4 million metric tons, for an average of less than 12 million metric tons. The crop year 1975/76 had 17 million metric tons and 1976/77 had 23.6, for an average of over 20. The 66-percent increase in production, plus higher prices, made a significant difference.

One other influence contributed to the sharp drop in the ratio of U.S. to Canadian farm cash receipts: supply control and pricing schemes in Canada's dairy and poultry industries during the midseventies resulted in higher prices for dairy and poultry products. The higher prices, in turn, resulted in considerably improved returns to the producers.

Income Tax Records

Income tax records are another source of information on "farmer" earnings from agriculture and other sources. Each nation has done some analysis of the tax records which report some farm income (or loss) along with other forms of income. The taxpayers included are labeled "farm taxfilers." The tax records are processed and analyzed to discover the degree to which farm losses are being used to offset nonfarm income.

Farm taxfilers in the two nations have a wide range of interests and commitment. These range from large commercial farmers whose income is entirely from farming to persons who are only superficially involved in farming. The income tax records of both the United States and Canada reflect this wide range of commitment to farming by the farm taxfilers. An analysis of the records suggests the degree to which individual taxpayers are benefitting from reported farm losses. Abuse of the farm tax provisions can provide significant tax shelters for many who are only superficial farmers. Many farmers, of course, are also using interest payments, depreciation, or cash accounting combined with aggressive expansion to reduce their current tax liability.

Much publicity has been given to taxpayers reporting a large nonfarm income combined with a sizable farm loss. Primarily with this case in mind, two USDA researchers undertook an analysis of the records of all 1970 U.S. farm taxfilers. The resulting study is especially revealing with respect to the 43 percent of the farm taxfilers who reported farm losses (10). Following are a number of the more interesting findings:

> About 43 percent of the 2.9 million U.S. individuals filing farm tax returns in 1970 reported losses--nearly 1.3 million individuals. An analysis of these farm loss returns suggests that "tax loss" farmers who invest in agriculture to shelter nonfarm

earnings are not "typical" in U.S. agriculture. But neither are they a rarity.

More than 40 percent of total farm losses were reported by individuals with less than $5,000 in basic income (adjusted gross income plus excluded gains, dividends, and other adjustments to income).

However, over 17 percent of reported farm losses were claimed by those with $25,000 or more in basic income. This latter group accounted for about 5 percent of those reporting farm losses but paid 56 percent of the income taxes paid by people reporting farm losses. The higher the basic income the more frequent became the reported farm losses.

More than 90 percent of the 1970 farm loss returns had a loss of less than $5,000. Farm losses of $10,000 or more were reported by about 3 percent of the farm loss returns. These large farm losses were concentrated in two basic income classes--those with negative basic incomes and those with $25,000 or more.

Nonfarm income was substantially higher for the farm loss group than for the group reporting farm profits. Also, the size of nonfarm income increased substantially with the size of the farming operation for the loss group while the level of nonfarm income remained relatively constant for the group reporting farm profits.

In terms of numbers of U.S. taxpayers and amount of nonfarm income reported, the majority of farm loss returns do not appear to be tax shelters. However, there is some abuse of the farm tax provisions.

Canada, apparently, has not done similar indepth research to establish the degree to which reported farm losses might be providing a tax shelter. But both Canada and the United States have done limited analysis on tax records for a more recent tax year. Canadian analysts looked at their country as a whole and separately at the 10 Provinces (fig. 1). U.S. analysts considered the whole country as well as 10 specified U.S. farm production regions (fig. 2).

For the United States, net incomes were lowest in Appalachia and the Northern Plains where 36 percent of farm taxfilers reported less than $6,000 per year (table 9). In the Corn Belt and the Northeast, only one-fourth

Figure 1. Canadian Farming Regions

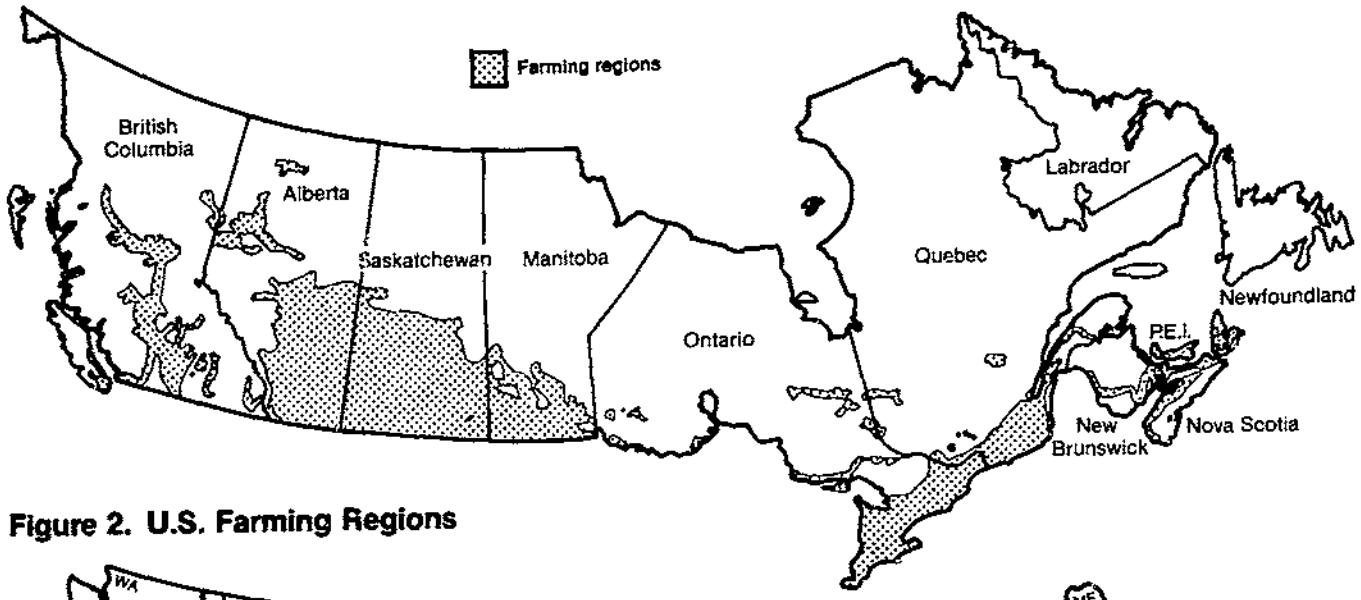

Figure 2. U.S. Farming Regions

Table 9--Number of U.S. taxpayers under various income classes and average net income per taxpayer, by region, 1976

Region	Net income class											
	0	$1 to $1,999	$2,000 to $3,999	$4,000 to $5,999	$6,000 to $7,999	$8,000 to $9,999	$10,000 to $11,999	$12,000 to $14,999	$15,000 to $24,999	$25,000 to $49,999	$50,000 and over	Total
					Number							
Taxfilers reporting in--												
Northeast	9,277	7,231	10,884	12,189	22,858	19,833	7,817	19,641	24,043	14,934	7,558	156,430
Lake States	12,881	18,578	13,165	39,179	31,261	37,224	18,531	33,683	58,371	34,047	6,448	303,368
Corn Belt	37,279	40,614	59,360	32,831	42,139	46,398	35,753	76,253	175,691	88,493	25,167	659,978
Northern Plains	24,947	14,054	35,532	21,322	23,454	20,965	20,224	26,057	48,297	27,959	6,967	269,780
Appalachian	12,566	47,184	43,407	37,589	33,801	27,286	29,295	44,399	68,010	37,382	8,827	389,746
Southeast	18,727	15,132	14,688	13,711	15,594	10,920	15,938	21,729	37,693	20,866	9,472	194,470
Delta States	3,761	9,559	16,920	9,559	13,211	15,559	10,252	8,892	27,870	16,043	4,590	136,216
Southern Plains	20,391	25,327	31,601	31,500	8,351	22,150	18,567	33,693	73,313	45,430	17,424	327,747
Mountain	15,100	7,158	15,440	9,863	10,318	12,522	8,834	15,164	30,810	14,085	5,274	144,568
Pacific	5,546	19,543	7,351	7,444	12,895	10,879	6,238	20,489	56,786	41,355	14,733	203,259
U.S. total	160,475	204,382	248,348	215,187	213,882	223,736	171,449	300,000	601,049	340,594	106,460	2,785,562
					Dollars							
Average net income per taxfiler in--												
Northeast	-5,774	841	2,585	5,024	6,786	8,908	10,812	13,500	40,051	31,592	349,310	16,328
Lake States	-11,713	1,073	2,508	5,178	6,726	8,998	11,003	13,530	39,340	34,087	244,032	13,672
Corn Belt	-7,775	1,250	3,154	4,880	7,268	8,753	11,080	13,606	39,683	33,465	246,145	16,412
Northern Plains	-11,498	1,196	3,104	5,110	6,949	8,865	11,005	13,309	39,660	32,771	248,493	12,317
Appalachian	-6,731	961	3,050	5,056	7,051	8,902	10,906	13,353	39,640	31,781	264,828	12,879
Southeast	-10,462	800	3,097	4,984	7,209	8,855	11,035	13,461	39,018	34,240	289,432	15,613
Delta States	-17,574	705	3,073	5,294	7,097	8,986	10,881	13,753	39,477	33,257	259,774	14,835
Southern Plains	-10,077	939	2,808	4,952	7,186	8,973	10,897	13,241	39,535	32,220	342,812	18,638
Mountain	-14,215	780	3,007	5,397	7,094	9,164	11,001	13,452	39,175	34,400	288,165	13,694
Pacific	-32,133	1,073	2,843	5,263	7,134	8,582	10,826	13,391	39,949	32,691	296,346	22,079
U.S. average	-10,753	1,018	2,998	5,068	7,033	8,894	10,972	13,458	39,574	33,020	288,239	15,620

Source: (31).

of taxfilers reported less than $6,000. On the other hand, more than half the taxfilers in Canada's Atlantic Provinces reported less than $5,000 net income, whereas in Saskatchewan and British Columbia only 30 percent reported less than $5,000 net income (table 10).

At the high end of the reporting range, the U.S. Pacific region and British Columbia in Canada had the greatest proportion of high net incomes. Over 7 percent of the Pacific region farm taxfilers reported more than $50,000 net income, while nearly 2 percent of the British Columbia taxfilers reported more than $50,000.

The 1974 Canadian study and the 1976 U.S. study have not been analyzed to the same extent as the 1970 U.S. study which resulted in the tax loss farming bulletin (10). It can be assumed, however, that a large number of taxfilers in each study reported farm losses.

Four of the 10 regions in the U.S. study--the Southeast, Southern Plains, Mountain, and Pacific--reported negative net farm incomes (table 11). This means that average net farm losses exceeded average farm profits in the four regions. Even in regions such as the Lake States, Corn Belt, and Northern Plains, where commercial farming is considered commonplace, average net farm incomes ranged only between $2,000 and $4,000 in 1976.

The farm income column with respect to Canada's farm taxfilers (table 12) turns out to be positive throughout. Nevertheless, only in Saskatchewan and Manitoba did farm income for these filers average higher than their off-farm income. In British Columbia, in fact, net farm income was only 11 percent of total net income.

An extended analysis of the two sets of farm taxfiler records is not available; hence, it is not possible to ascertain the extent of possible "tax loss" farming that may apply in each country. Tables 11 and 12 suggest that tax loss farming is considerably greater in the United States than in Canada. But in both nations, the possibilities for using farm losses as a tax shelter surely motivates substantial numbers of farm taxfilers. Tax laws in both nations strive to reduce the proportion of losses which are permitted as artificial losses for tax purposes. Tax authorities, in other words, attempt to disallow "artificial" losses for tax purposes, but do allow for the "real" losses.

The largest source of nonfarm income is "wages and salaries" (tables 11 and 12). The average size of the

Table 10--Number of Canadian taxfilers under various income classes and average net income per taxfiler, by Province, 1974

Province	Net income class										
	0	$1 to $2,499	$2,500 to $4,999	$5,000 to $7,499	$7,500 to $9,999	$10,000 to $14,999	$15,000 to $24,999	$25,000 to $34,999	$35,000 to $49,999	$50,000 and over	Total
						Number					
Taxpayers reporting in--											
Newfoundland	16	114	162	71	38	54	1/10	2/12	3/9	0	436
Prince Edward Island	148	735	979	526	270	247	162	59	33	34	3,193
Nova Scotia	163	340	1,262	846	603	510	275	62	39	24	4,624
New Brunswick	151	587	888	665	401	355	236	60	49	37	3,439
Quebec	726	4,204	11,577	12,616	4,620	3,731	1,652	421	230	311	40,138
Ontario	4,159	12,898	21,482	16,204	13,119	17,906	12,158	3,412	1,640	1,432	104,412
Manitoba	1,493	6,053	8,994	6,840	4,895	6,177	4,266	1,224	578	344	40,374
Saskatchewan	2,312	9,258	16,599	14,350	11,447	16,342	14,914	5,184	2,597	1,387	94,390
Alberta	3,939	10,337	15,808	12,028	9,464	13,184	10,906	3,407	1,795	1,365	82,233
British Columbia	1,093	2,156	3,352	2,829	2,633	4,299	2,362	833	487	362	21,086
Canadian total 4/	14,294	47,258	81,162	64,020	47,539	62,868	47,626	14,698	7,511	5,303	395,279
						Dollars					
Average net income per taxpayer in--											
Newfoundland	-3,737	1,494	3,721	6,066	8,454	11,835	1/17,062	2/29,109	3/59,547	0	6,502
Prince Edward Island	-8,045	1,497	3,707	6,133	8,615	12,186	19,492	29,444	40,251	68,283	6,466
Nova Scotia	-3,281	1,503	3,784	6,143	8,664	11,989	18,844	28,934	40,967	70,179	6,985
New Brunswick	-3,636	1,464	3,764	6,113	8,646	12,097	18,820	29,068	40,775	73,755	7,697
Quebec	-3,521	1,611	3,889	5,896	8,627	11,962	18,540	29,099	41,400	85,106	7,231
Ontario	-4,403	1,480	3,781	6,180	8,704	12,223	18,760	29,210	41,151	87,743	9,923
Manitoba	-3,533	1,467	3,766	6,174	8,668	12,196	18,882	29,919	40,773	70,567	8,838
Saskatchewan	-5,046	1,521	3,783	6,210	8,704	12,293	19,087	29,160	40,917	71,121	11,687
Alberta	-5,512	1,456	3,779	6,178	8,706	12,262	18,928	29,249	41,102	77,058	10,416
British Columbia	-5,682	1,420	3,777	6,207	8,733	12,283	18,683	29,241	41,181	88,938	11,169
Canadian average 4/	-4,826	1,491	3,793	6,131	8,693	12,233	18,904	29,176	41,034	79,179	10,018

1/ $15,000 to $19,999.
2/ $20,000 to $34,999.
3/ $35,000 and over.
4/ Includes Yukon, Northwest Territories, and foreigners and taxfilers who could not be classified.

Source: (1).

Table 11--Components of average net income per U.S. taxfiler, by region, 1976

Region	Net farm income	Wages and salaries	Business and profession	Interest and dividends	Rents and royalties	Other income	Total nonfarm income	Total net income
				Dollars				
Northeast	920	8,517	841	2,869	135	1,811	14,173	15,093
Lake States	2,173	6,767	511	1,244	344	1,729	10,595	12,768
Corn Belt	3,716	7,684	861	1,575	279	1,620	12,019	15,735
Northern Plains	2,528	4,696	507	1,278	596	1,715	8,792	11,320
Appalachian	435	8,273	855	1,203	344	1,309	11,984	12,419
Southeast	-958	9,736	1,144	2,076	330	2,053	15,339	14,381
Delta States	805	8,290	1,217	1,228	550	1,857	13,142	13,947
Southern Plains	-643	10,032	1,542	2,204	1,478	2,278	17,534	16,891
Mountain	-886	8,302	869	1,981	638	1,564	13,354	12,468
Pacific	-659	13,099	1,536	3,065	339	3,320	21,359	20,700
U.S. average	1,277	8,301	954	1,753	499	1,849	13,356	14,633

Source: (31).

Table 12--Components of average net income per Canadian taxfiler, by Province, 1974

Province	Net farm income	Wages and salaries	Off-farm self-employment	Rental and investment	Family allowances	Other income	Total nonfarm income	Total net income
				Dollars				
Newfoundland	1,065	3,369	565	565	282	656	5,437	6,502
Prince Edward Island	2,859	1,995	440	526	238	408	3,607	6,466
Nova Scotia	941	3,789	628	805	242	580	6,044	6,995
New Brunswick	2,166	3,307	604	810	258	551	5,530	7,697
Quebec	2,419	2,739	487	838	283	435	4,782	7,201
Ontario	2,910	4,225	704	1,377	232	476	7,014	9,923
Manitoba	4,752	2,376	326	801	228	355	4,086	8,838
Saskatchewan	8,062	1,669	267	1,020	209	380	3,545	11,607
Alberta	4,299	3,739	660	1,115	217	386	6,117	10,416
British Columbia	1,286	6,151	1,069	1,752	263	648	9,883	11,169
Canadian average	4,452	3,241	544	1,122	230	428	5,565	10,018

Source: (1).

wages and salaries component is especially large in British Columbia and the three Pacific States (Washington, Oregon, and California) where a sizable number of farm taxfilers had reported $50,000 or more of net income.

COMPARISON OF CANADIAN PROVINCES WITH ADJOINING STATES

Two recent censuses of agriculture show changes in farm numbers, total land in farms, and average size of farms over a recent 5-year period. The censuses relating to the United States were conducted in 1969 and 1974; the Canadian censuses were conducted in 1971 and 1976.

Cash receipts from the sale of farm commodities are given for the Provinces and States for each specified Province/State comparison. The years 1974, 1975, and 1976 were selected for observation. They are the most recent set of 3 years in which the U.S. and Canadian dollars were essentially at par with each other.

British Columbia and Washington

Agriculture is substantially more important in Washington than in British Columbia. In 1970, Washington had three times as much farmland as did British Columbia (table 13). Over the next 5 years, Washington experienced a net loss of 5 percent of its farmland, while British Columbia maintained the same level of farmland by developing new land as rapidly as older farmland went into airports, highways, and urban expansion.

Farm consolidation proceeded much faster in British Columbia than in Washington over the 5-year period. During this time, the British Columbia average farm size grew from 61 to 79 percent of the Washington average farm size.

Washington has only one mountain range (the Cascades) extending the full north-south length of the State. Much of the State east and some west of this mountain range is being farmed. The large wheat farms in the southeastern quadrant contribute most to the relatively large size of the Washington farms.

Nearly the entire Province of British Columbia is covered with several mountain ranges running the full length of the Province parallel to the west coast. A few cattle ranches in the narrow intermountain valleys and some grain-livestock farms in the northeastern part (British Columbia portion of the Peace River area) bring up the average farm size. Most of the rest of British Columbia farming is of an intensive nature conducted on comparatively small acreages.

The climate for agriculture is somewhat more favorable in Washington than in British Columbia. Thus with only three times as much farmland, Washington produces more than four times as much value in farm output. For the period 1974-76,

Table 13--Comparisons of farms in British Columbia with Washington State

Item	British Columbia		Washington	
	1971	1976	1969	1974
Farms (number)	18,400	13,033	34,033	29,410
Land in farms (1,000 acres)	5,823	5,811	17,559	16,612
Average size (acres)	316	446	516	565

Sources: (21, 29).

annual cash receipts for all farm products approached $1.8 billion in Washington, compared with $0.44 billion in British Columbia (table 14).

The population of British Columbia is about 72 percent of the population of the State of Washington. Hence, with its much smaller agricultural base, British Columbia focuses more on producing livestock and livestock products. This action is designed to reduce the required level of British Columbia imports of these higher priced foods. Washington's output of livestock and livestock products is less than twice British Columbia's output, whereas the value of crop output is eight times that of British Columbia.

Prairie Provinces and Montana/North Dakota

The number of farms in the Prairie Provinces--Alberta, Saskatchewan, and Manitoba--exceeds the combined number in Montana and North Dakota by nearly 2-1/2 times. Total land in farms in the three Provinces, however, exceeds that of the two States by little more than 1-1/4 times (table 15). Thus, Montana/North Dakota farms average nearly twice the size of the Canadian Prairie farms.

The main reason that farms on the U.S. side are larger is that most of Montana and some of North Dakota is farmed less intensively.

Vast regions of Montana and southwestern North Dakota still have much of their land in its native cover (land never tilled). Rangeland constitutes 56 percent of Montana land use; forest land constitutes 24 percent. Only 17 percent is in cropland. Grazing land is utilized by ranchers and farmers, and this results in a more extensive type of farming with larger land holdings.

Table 14--Cash receipts from selected commodities for British Columbia and Washington State

Commodity	1974		1975		1976		3-year average	
	British Columbia	Washington	British Columbia	Washington	British Columbia	Washington	British Columbia	Washington
	1,000 dollars							
Cattle	62,183	168,474	70,401	151,767	74,125	188,530	68,903	169,590
Hogs	8,632	7,958	11,389	9,308	11,345	8,969	10,455	8,745
Dairy	97,091	195,406	111,008	208,297	115,340	240,182	107,813	214,628
Poultry and eggs	79,677	65,576	71,981	63,036	84,447	69,084	78,702	65,899
Other livestock	9,364	11,894	10,324	14,391	10,613	16,345	10,100	14,210
Grains	23,523	568,302	18,000	598,758	19,362	600,840	20,295	589,300
Vegetables	18,436	106,897	22,359	116,765	20,622	105,507	20,472	109,723
Potatoes	12,877	132,720	10,756	166,484	12,909	137,117	12,181	145,440
Fruits	46,087	246,245	39,946	239,656	46,636	158,034	44,223	214,645
Greenhouse nursery	12,281	40,335	18,622	41,733	23,598	44,561	18,167	42,210
Other crops	37,600	248,731	37,455	203,049	61,350	185,098	45,468	212,293
Total	407,751	1,792,538	422,241	1,813,244	480,347	1,754,267	436,780	1,786,683

Sources: (23, 25).

Table 15--Comparisons of farms in the Prairie Provinces with Montana/North Dakota

Item	Prairie Provinces		Montana/North Dakota	
	1971	1976	1969	1974
Farms (number)	174,653	156,851	71,322	66,034
Land in farms (1,000 acres)	133,571	133,644	106,036	104,546
Average size (acres)	765	852	1,491	1,583

Sources: (21, 29).

The Prairie Provinces also have substantial native grazing land (such as in southwestern Saskatchewan and southeastern Alberta), but the preponderance of land in the farmed areas of the three Provinces is under cultivation.

Another reason the U.S. side has larger farms is that this region was settled somewhat earlier, and the process of farm enlargement has been going on for a longer time. Thus, although the Canadian farms grew at a faster rate in the recent period, more farms had already been consolidated on the U.S. side. There is also a force which tends to slow the average rate of growth of the Canadian farms. The three Provinces have more large cities (half the people of the Prairie Provinces live in their five largest cities) than the two States, and farm operators in the vicinity of large cities pursue a more intensive agriculture on smaller holdings. Cities in Montana and North Dakota are not of comparable size and represent smaller market outlets.

Grains are the important commodity being produced on both sides of the border--cash receipts from grains make up more than half the total cash receipts (table 16). Wheat, by a wide margin, makes up the bulk of this grain. (It should be pointed out that grains, and especially wheat, were very favorably priced during the midseventies.)

Cattle are also an important source of income for the Great Plains farmers--making up 20 percent of the cash farm receipts in Canada and 24 percent in the United States. Hogs, poultry, eggs, and dairy are produced in much larger quantities on the Canadian side. This fact is largely explained by the larger consumer market north of the border. The Prairie Provinces have a population three times the size of the combined population of Montana and North Dakota. Besides, British Columbia and eastern Canada have a deficit in food production,

Table 16--Cash receipts from selected commodities for the Prairie Provinces and Montana/North Dakota

Commodity	1974		1975		1976		3-year average	
	Prairie Provinces	Montana/ North Dakota	Prairie Provinces	Montana/ North Dakota	Prairie Provinces	Montana/ North Dakota	Prairie Provinces	Montana/ North Dakota
	1,000 dollars							
Cattle	948,282	673,433	1,051,354	669,364	1,123,092	720,519	1,040,909	687,772
Hogs	311,004	66,459	283,057	67,187	249,369	65,347	281,143	66,331
Sheep	6,103	20,146	6,442	17,610	6,428	15,227	6,324	17,661
Dairy	169,264	85,222	197,205	85,167	203,760	95,895	190,076	88,761
Poultry and eggs	153,908	18,286	140,004	18,609	155,137	17,079	149,683	17,991
Other livestock	36,330	18,050	33,483	16,976	37,808	23,676	35,874	19,567
Grains 1/	2,290,818	2,255,814	3,057,737	1,605,863	2,764,733	1,406,824	2,704,429	1,756,167
Oilseeds 2/	466,760	82,814	340,589	62,644	300,029	40,900	369,126	62,119
Potatoes	29,960	98,370	32,104	55,785	34,698	70,113	32,254	74,756
Sugar beets	41,820	103,499	34,198	76,906	33,144	60,014	36,387	80,140
Other crops	120,839	158,273	100,867	148,667	109,828	137,254	110,511	148,065
Total	4,575,088	3,580,366	5,277,040	2,824,780	5,018,026	2,652,848	4,956,718	3,019,331

1/ Wheat, oats, barley, and rye.
2/ Flaxseed, rapeseed, and soybeans.

Sources: (23, 25).

and buy most of their extra needs, primarily grains and cattle, from the Prairies.

The Prairie Provinces far surpassed Montana/North Dakota in the production of oilseeds, but the two States had a much higher output of potatoes and sugar beets.

Ontario and Michigan

The main agricultural areas for both Ontario and Michigan are in the southern part of the two jurisdictions. Farming is carried on at similar latitudes, with the most productive land on both sides of the border lying between the 42nd and 44th parallels.

Ontario has 21 percent more farms and 35 percent more land in farms than Michigan. This gives Ontario the edge in size of farms by about 12 percent (table 17).

Table 17--Comparisons of farms in Ontario with Michigan

Item	Ontario		Michigan	
	1971	1976	1969	1974
Farms (number)	94,772	76,983	77,946	64,094
Land in farms (1,000 acres)	15,963	14,744	11,901	10,832
Average size (acres)	168	192	153	169

Sources: (21, 29).

In terms of cash value received from the sale of farm products, Michigan receipts in 1974-76 were only five-eighths the size of the farm cash receipts in Ontario (table 18). The commodities for which differences were greatest were tobacco in the crops area and cattle, hogs, poultry, and eggs in the animal products area.

Growing tobacco in Ontario saves the Canadian economy large foreign exchange outlays which would be required if tobacco were imported. The output of animal products is aimed at satisfying the large consumer market, not only Ontario's 8 million people but extending to all of eastern Canada's 17 million people. Farmers in the Atlantic Provinces and Quebec produce substantially less of most animal products than is required to feed the people within their borders. 2/ This gives Ontario producers a market beyond their own Province.

2/ Dairy products are an exception in Quebec which currently produces 135 percent of its own needs.

Table 18--Cash receipts from selected commodities for Ontario and Michigan

Commodity	1974		1975		1976		3-year average	
	Ontario	Michigan	Ontario	Michigan	Ontario	Michigan	Ontario	Michigan
	1,000 dollars							
Cattle	588,483	168,729	602,346	163,042	572,463	178,565	587,764	170,112
Hogs	255,689	86,762	304,353	104,801	297,782	105,396	285,941	98,986
Dairy	469,929	353,860	574,047	376,314	565,273	447,099	536,416	392,424
Poultry and eggs	274,508	63,437	252,708	59,413	285,442	69,532	270,886	64,127
Other livestock	29,053	15,069	32,356	13,987	33,296	15,207	31,568	14,754
Grains	73,439	131,417	93,169	176,782	89,868	134,252	85,492	147,484
Soybeans	78,511	100,569	44,925	65,821	78,143	75,696	67,193	80,695
Corn	159,444	216,374	148,114	202,890	153,062	244,748	153,540	221,337
Vegetables	125,745	194,055	158,688	212,348	160,702	179,899	148,378	195,434
Potatoes and sugar beets	38,371	113,064	34,754	77,666	34,451	66,637	35,859	85,789
Fruits	66,492	130,644	63,851	96,344	69,379	96,087	66,574	107,692
Tobacco	195,190	---	186,429	---	220,785	---	200,801	---
Greenhouse nursery	74,805	55,610	86,468	61,276	101,790	63,115	87,688	60,000
Other crops	81,355	22,249	102,221	19,123	117,918	24,342	100,498	21,905
Total	2,511,014	1,651,839	2,684,429	1,629,807	2,780,354	1,700,575	2,658,599	1,660,740

--- = not applicable.

Sources: (23, 25).

Michigan producers also have access to a very large consumer market in the northeastern quadrant of the United States. Michigan producers, however, receive a great deal of competition from producers in other States in the eastern Corn Belt and from Middle Atlantic producers in supplying this northeast market. Since there is enough capacity to satisfy the market, the inducement to farmers tends to be to produce that product in which their farm or region has a comparative advantage, or the product for which updated marketing services exist in the local area.

Quebec and New York

The Province of Quebec and the State of New York each had approximately 43,500 farms in 1975, averaging somewhat over 200 acres per farm (table 19). During the preceding 5 years, farm numbers were shrinking rapidly in both jurisdictions but especially in Quebec which lost around 30 percent of its farm units compared with 16 percent in New York. In the same period, Quebec also lost a greater proportion of its farmland--16 percent in Quebec compared with 7 percent in New York.

In both the Province and the State, animal and animal products are extremely important in their contribution to cash receipts from farm production (table 20). Grains and other field crops contribute insignificantly to cash receipts, partly because these crops are largely used as feed inputs into the livestock sector. Another reason crops do not dominate is that good productive land is a limited resource in both Quebec and New York.

Dairy production supplies a large population on both sides of the border and is by far the largest farm enterprise. Cattle, poultry, and eggs are also necessary enterprises to serve the large consuming populations. Pork and beef needs in the New

Table 19--Comparisons of farms in Quebec and New York

Item	Quebec		New York	
	1971	1976	1969	1974
Farms (number)	61,257	43,097	57,909	43,682
Land in farms (1,000 acres)	10,801	9,026	10,148	9,411
Average size (acres)	176	209	196	215

Sources: (21, 29).

Table 20--Cash receipts from selected commodities for Quebec and New York

Commodity	1974		1975		1976		3-year average	
	Quebec	New York	Quebec	New York	Quebec	New York	Quebec	New York
	1,000 dollars							
Cattle	98,898	95,975	105,881	76,464	125,322	97,758	108,034	90,066
Hogs	182,874	7,640	247,318	13,463	241,595	12,220	223,929	11,107
Dairy	516,806	811,915	647,744	859,599	620,526	992,316	595,025	887,943
Poultry and eggs	188,897	104,096	172,819	99,491	198,795	109,430	186,837	104,339
Other livestock	9,703	11,631	11,769	11,534	12,056	11,890	11,176	11,685
Grains	7,007	80,890	8,349	74,249	6,731	71,703	7,362	75,616
Vegetables	30,393	110,595	41,429	134,167	41,171	117,112	37,664	120,625
Potatoes	32,231	56,261	22,947	53,440	27,003	61,330	27,394	57,010
Sugar beets	1,979	3,129	5,721	2,913	3,131	1,993	3,610	2,678
Fruits	18,014	107,933	16,513	104,201	18,306	96,810	17,611	102,981
Other crops	56,766	105,196	60,609	116,792	75,429	125,804	64,268	115,931
Total	1,137,568	1,495,261	1,341,098	1,546,313	1,370,065	1,698,371	1,282,910	1,579,982

Sources: (23, 25).

York market are supplied largely by the U.S. Corn Belt. Most poultry and egg needs on the U.S. side are supplied by the Middle Atlantic region and Maine. In Quebec, swine production has become a large industry for several reasons. Historically, eastern Canada has been a net importer of hogs and pork, and local producers have often had an incentive to get into the business. Since 1976, the expansion in hogs has been helped by the declining Canadian exchange rate. Border impediments have tended to discourage substantial imports from the United States, and long hauls add heavily to the costs of bringing hogs and pork all the way from western Canada.

At least two other forces have given the hog industry a strong boost in Quebec. Vertical integrators such as feed mills and slaughterhouses have assumed some of the risk and management functions associated with swine production. Secondly, quotas imposed on the dairy and poultry industries have contributed to generating underemployed labor resources on Quebec farms. These resources have turned increasingly to swine production which is not restricted by quotas.

Atlantic Provinces and Maine

The Atlantic Provinces (New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland) had roughly twice as much land in farms as the State of Maine at the beginning of the seventies (table 21). Five years later, the amount of land in farms had shrunk about 21 percent in the four provinces and about 13 percent in Maine.

Farm numbers had shrunk even more dramatically during the 5 years, declining 41 percent in the Atlantic Provinces and 19 percent in Maine. By the midseventies, the Canadian farms in the Atlantic Provinces were larger than the Maine farms, even though at the beginning of the decade the reverse had been true.

Table 21--Comparisons of farms in Atlantic Provinces with Maine

Item	Atlantic Provinces		Maine	
	1971	1976	1969	1974
Farms (number)	17,078	10,137	7,971	6,436
Land in farms (7,000 acres)	3,475	2,743	1,760	1,524
Average size (acres)	203	271	221	237

Sources: (13, 26).

As indicated by farm cash receipts, poultry, eggs, dairy, and potatoes were the major farm enterprises, comprising about 90 percent of Maine's farm cash receipts (table 22). Maine's large output of potatoes can be attributed primarily to the comparative advantage this crop enjoys in the State. Poultry, eggs, and to a lesser extent, dairy, have been growing industries because of the large Boston-to-New York market.

Potatoes, poultry, eggs, and dairy are also important in the Atlantic Provinces, accounting for 60 percent of all farm cash receipts. The potato enterprise owes much of its size to comparative advantages in producing this crop. Poultry, eggs, and dairy enterprises help supply the more than 2 million consumers living within the four Atlantic Provinces.

Cash receipts from the sale of cattle and hogs in the four Provinces far exceeded the returns from these products in Maine. The Provinces are separated from the United States by an international boundary and far removed from large suppliers of red meats in western Canada or the U.S. Corn Belt. Therefore, the local producers make a special effort to produce the higher valued foods, applying their meager farm production resources to do so.

Quotas applying to poultry, eggs, and dairy enterprises on the Canadian side restrict the amount of farm labor which could be absorbed by these intensive farming industries. There is considerable incentive to channel resources held out of the quota enterprises into the hog and cattle enterprises which have no quotas.

Table 22--Cash receipts from selected commodities for the Atlantic Provinces and Maine

Commodity	1974		1975		1976		3-year average	
	Atlantic Provinces	Maine	Atlantic Provinces	Maine	Atlantic Provinces	Maine	Atlantic Provinces	Maine
	1,000 dollars							
Cattle	29,405	7,085	33,752	5,492	33,263	7,521	32,140	6,699
Hogs	24,231	681	31,296	643	30,714	888	28,747	737
Poultry and eggs	43,687	160,185	43,851	179,731	48,743	191,871	45,427	177,262
Dairy	52,226	59,345	63,539	61,137	71,000	59,345	62,225	59,942
Sheep and lambs	631	229	794	326	1,058	222	828	259
Other livestock	4,069	73	4,596	42	5,513	51	4,726	55
Grains	1,376	5,025	475	5,233	480	5,490	777	5,249
Potatoes	90,606	161,116	59,123	88,032	93,614	138,274	81,114	129,141
Vegetables	7,251	6,250	9,150	6,854	9,352	6,420	8,584	6,508
Fruits	9,639	10,968	10,187	10,548	10,100	15,843	9,975	12,453
Other crops	17,699	7,078	18,589	6,612	21,338	8,960	19,209	7,550
Total	291,733	418,174	299,706	364,753	341,159	443,068	310,866	401,665

Sources: (13, 25).

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